POST MANUAL

THIS IS A HODGE-PODGE OF STUFF THAT CAME UP AFTER THE ACCOMPANYING MANUAL HAD ALREADY GONE TO PRINT. SOME OF IT IS IMPORTANT, SOME NOT. I´LL TRY TO KEEP IT SHORT.

TERMINOLOGY:

REFERENCES TO A PARTICULAR ´BIT´ IN A BYTE HAS BEEN ONE OF THE GREAT ´NON STANDARDS´ OF COMPUTERDOM. I KNOW OF AT LEAST 4 ´STANDARDS´ FOR THIS AND NONE OF THEM EVER MADE ANY SENSE. AT THE RISK OF ADDING TO THE CONFUSION I´VE ADOPTED THE FOLLOWING FOR CEEMAC:

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   BIT01 MEANS THIS:  0000 0001
   BIT02 MEANS THIS:  0000 0010
   BIT08 MEANS THIS:  0000 1000
  *BIT30 MEANS THIS:  0011 0000
  *BIT77 MEANS THIS:  0111 0111  ETC, ETC.
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*INDICATES MULTIPLE BITS ´OR´ED

I´LL NOT ATTEMPT TO JUSTIFY OR RATIONALIZE IT FURTHER; ITS JUST MY TERMINOLOGY.

CORRECTIONS AND ADDITIONS TO THE MANUAL:

PAGE 4:

AFTER EXPLANATION OF ´RETURN´ KEY, ADD:

´0´ KEY:

IDENTICAL FUNCTION AS ´RETURN´ KEY

PAGE 4:

UNDER ´-->´ KEY:

´...RESTART FROM THE TOP.´

SHOULD READ:

´...RESTART FROM THE TOP BUT DOES NOT REINITIALIZE VARIABLES.´

PAGE-8:

THE ´SPECIAL TRAITS´ WERE NEVER COVERED ELSEWHERE AS PROMISED SO THEY ARE COVERED HERE, NOW:-

SYM-0, 1 & F ARE NOT PERMITTED IN LOOPS OR SUBS.

SYM-0; SEE EXPLANATION IN ´EXECUTION CMDS´ CHAPTER UNDER ´<--´ KEY.

SYM-1: SEE EXPLANATION IN ´EXECUTION CMDS´ CHAPTER UNDER ´-->´ KEY.

SYM-F IS THE RESTART POINT WHENEVER THE END-OF-MAIN-CHAIN IS ENCOUNTERED (AT THE FIRST ´SUB´ STATEMENT OR AT THE ´CEEMAC´ (FENCE) STATEMENT.

PAGE 9:

IN MID PAGE UNDER ´SUB´ EXPLANATION, REPLACE STARTING WITH

´TO SAVE A SUBROUTINE...´ WITH

TO SAVE A SUBROUTINE ONLY, FIRST SAVE THE FULL SCORE (IF NOT ALREADY DONE) THEN DELETE ALL STATEMENTS OTHER THAN THE SUBROUTINE ITSELF; TRANSFER THE ´SUB´ NAME TO THE ´SCORE:´ LINE; DELETE THE ´SUB´ STATEMENT AND ´BSAVE´ IT AS IF IT WERE A SCORE.

PAGE 11:

NEAR THE BOTTOM OF THE PAGE:-

´UNTIL/UNLESS´ SHOULD READ:

´TIL/UNLESS´

PAGE 22:

LAST LINE SHOULD READ:

(ASCII; HI BIT ON)

PAGE 24:

INSERT BEFORE THE THE ´MUSIC READ VARIABLES:´

LINETX: MEANS ´LINE TEXTURE´. THIS VARIABLE CARRIES PRESENT AND FUTURE OPTION BITS TO ALTER THE CHARACTERISTICS OF A STRAIGHT LINE. ONLY ONE OPTION IS DEFINED IN RELEASE 1.0 OF CEEMAC. DOTTED, DASHED, AND THICKER LINES ARE ANTICIPATED FUTURE OPTIONS.

BIT04= DO NOT OVERLAP ´STAIRSTEPED´ LINES. DIAGONAL LINES IN APPLE HIRES ARE NORMALLY DRAWN WITH OVERLAP AT THE ´STAIRSTEPS´. USUALLY THIS IS DESIREABLE BUT MAY NOT BE AS WHEN DRAWING SHAPE-DRIVEN TEXT

CHARACTERS.

PAGE 31:

PARAM1 OF ´ABOX´ MACRO:

BOTH $80 AND $81 DO, INDEED, DRAW OUTLINED RECTANGLES.

PAGE 35:

PARAM1 OF ´ANOTE´ MACRO:

NOW READS: $FF= 15,360 HZ

SHOULD READ: $FF= 15,300 HZ

- - - - -

NEXT IS THE CONTENTS OF A SORTA ´NEWSLETTER´ DATED 3-1-82 COVERING A FEW ITEMS THAT MIGHT BE OF INTEREST.

´HINTS & TIPS´

BOOTING: SHOULD HAVE MENTIONED THAT IF YOU TAKE THE ´N´ BRANCH AT BOOTUP IN ORDER TO GET TO THE CATALOG, YOU´LL HAVE TO REBOOT AND TAKE THE ´Y´ BRANCH TO GET CEEMAC RUNNING. ONCE CEEMAC IS GOING, YOU CAN CTRL-C TO DOS, DO A CATALOG AND THEN ´OVERLOAD´ DIFFERENT SHAPES OR LISTS MODULES AND/OR RUN DIFFERENT SCORES.

SPLINES: THE BEST WAY TO UNDERSTAND ABOUT SPLINES IS TO BRUN ´SPLINES.1´ THIS SCORE REDRAWS THE SPLINE EVERY TIME A PADDLE SETTING CHANGES WHILE DISPLAYING THE CURRENT SETTINGS IN THE TRACE WINDOW. EXAMINING THE SCORE LISTING (CTRL-A) AND REFERRING TO THE ´SPLINES´ CHAPTER, PROVIDES A MINI TUTORIAL ON THE SUBJECT. THIS SCORE WORKS WITH ´SPLINE RELATIVE´ FORCES. PDL0 DRIVES FORCE1 WITH PDL1 DRIVING FORCE2.

SPLINES.2 ILLUSTRATES ´GHOSTPOINTS´ WHERE PDL0 & PDL1 ARE THE X AND Y COORDINATES AFFECTING THE CURVATURE AT THE UPPER LEFT END POINT. THE GHOSTPOINTS HAVE INTENTIONALLY BEEN MADE VISIBLE FOR THIS SCORE. FOOLING AROUND WITH THESE SCORES COULD BE INSTRUCTIVE.

CIRCLE: STANDARD GEOMETRICS IN CEEMAC HAVE BEEN LARGELY IGNORED. HOWEVER, IF WE MUST DRAW A CIRCLE, HERE´S ONE WAY. DONT DISTURB THE TABLE HEADER AT $4400-$4407. ENTER THE FOLLOWING SHAPE FROM $4408 - $4417:

```
*4408:01 02 00 0F 00 00 00 00
*4410:80 32 00 7F 80 FE FF FF
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TO SAVE THIS SHAPE:

 ´CTRL-C´ (--> DOS MODE)
]BSAVE SH.CIRCLE,A$4400,L$18

NOTE THAT ENTERING THIS SHAPE WILL CLOBBERED THE TABLE IN RAM FOR OTHER PURPOSES; LATER YOU´LL HAVE TO RELOAD YOUR ´NORMAL´ TABLE FOR THE OTHER SCORES.

AFTER FIXING THE SHAPE TABLE AS INDICATED, ENTER THIS SCORE:

```
SCORE:     SC.CIRCLE
  SPEED [0,0]
  CLEAR [0,0]
  SETASP [0,0]
  ADOT [1,0]
  ROTATE = 0
  V1 = RNDPRM
  FOR 10
    FOR $10
      SHAPE [1,0]
      ROTATE = ROTATE + V1
    AGAIN
  AGAIN
  WAIT [1;80]
  CEEMAC  REL 1.0
```

...AND RUN IT (CTRL-A)

 (ALSO, YOU CAN SAVE IT IF YOU WANT)

IF YOU WONDERED WHY ´V1 = RNDPRM´, ITS JUST TO DEMONSTRATE A DRAWING TECHNIQUE THAT´S AVAILABLE WITH CEEMAC (A #1 WOULD ALSO HAVE DRAWN THE CIRCLE BUT WITH LESS ´PIZAZZ´).

AN ALTERNATE WAY WOULD HAVE BEEN TO CONSTRUCT A ´LIST´ MODULE WITH THE APPROPRIATE POSITIONS ON THE CIRCLE AND THEN ´ADOT´D IT. THIS WOULD REQUIRE MORE SPACE AND NOT HAVE ALLOWED FOR UP- AND DOWN-SCALING WHICH CAN BE DONE WITH SHAPES. SCALING IN THIS SCORE IS LEFT AS AN EXERCISE FOR THOSE WITH FURTHER INTEREST.

APPLICATIONS: I HESITATE TO MENTION IT BUT IT IS BECOMING INCREASINGLY CLEAR THAT ALMOST NO AREA OF GRAPHICS SEEMS IMMUNE TO INCURSION BY CEEMAC. EVEN BUSINESS GRAPHICS WHICH RELY ON PIE CHARTS, BAR GRAPHS, TIME-SERIES PLOTS, ETC ARE RIPE FOR ´SEMI-CUSTOM´ PACKS (SCORE, SHAPES, LISTS). RIGHT NOW, THE MECHANICS ARE A LITTLE AWKWARD EXCEPT FOR THE MOST TECHNICALLY MINDED. THINGS WILL GET EASIER AS I FIND WAYS TO SUPPORT THEM AT A HIGHER LEVEL.